



ASOS PROGRAM MANAGEMENT COMMITTEE

RECORD APMC 05-2
November 15, 2005

1. CONVENED - 9:00 AM

A meeting of the ASOS Program Management Committee (APMC) was convened by Acting Chair Mr. John Van Kuren on November 15, 2005. The meeting was held in Room 16246, Silver Spring Metro Center Building 2 (SSMC-2), National Weather Service Headquarters, Silver Spring, MD.

Members participating:

Chair	- John Van Kuren
Alternate	- Joseph Facundo
DOC	- Lee Stang
	- Jim Heil (for Mike Campbell)
DOD	- Tim Kimbrell
	- Col Michael Babcock on telecon
DOT	- Richard Thoma
	- Jay Merkle on telecon
ASOS PI	- Richard Ahlberg, Jr.
Ex. Sec.	- Rob Ericson

Advisors and/or guests included: Lewis Kozlosky, Peggy Hoch, Jerry Dinges, Doug Gifford, Anthony Leonardo, David Mannarano, and Greg Dalyai from DOC; Bing Huang, Claude Jones, Calvin Smith, and Jerry Kranz (telecon) from DOT; James Humphrey from DOD; and A. N. Ananth and Ron Allen from Prism.

2. OPENING REMARKS AND PREVIOUS MINUTES

Mr. Van Kuren conducted introductions of the new members, other members, and guests. The April 12, 2005, minutes were approved as written.

3. ASOS CCB REPORT

Mr. Ahlberg provided the ASOS Configuration Control Board (ACCB) Request for Change (RC) Status Report to the members in their folders. There were no items to be referred to the APMC.

4. NWS PRODUCT IMPROVEMENT (PI) STATUS BRIEFING

Mr. Ahlberg summarized the PI priorities.

ACU Processor Upgrade:

Software version 2.79a includes the FAA WSP interface, and is in the deployment stage. Version 2.79b includes a cold start fix and a summary in the maintenance page of path error messages, and is in the Operational Acceptance Test stage. Version 2.82 includes changes requested by the USAF, and deployment is projected for March 2006.

Dewpoint Sensor Replacement:

This project is on track with a minor maintenance safety issue and a cable connection problem. Mr. Facundo noted that this initiative was motivated by a maintenance improvement objective and requested a report at the next meeting on the maintenance improvement and savings.

The Following Action Items were assigned:

APMC 05-2.1 Dalyai: Provide a definitive briefing to the APMC on maintenance improvement for the temperature and dewpoint sensors.

APMC 05-2.2 Heil: Confirm the list of dewpoint continuity sites to be included in the maintenance improvement study.

Ice Free Wind Sensor (IFW):

Deployment started in October 2005 but there have been delays caused by production problems. Production has resumed at a rate of 40 units a week with the deployment schedule focused on the southern U.S. (Editor's note: production was subsequently suspended again, because otherwise good sensors were failing the "verifier" test used by the acceptance activity and by maintenance technicians.)
All Weather Precipitation Accumulation Gauge (AWPAG):

NWS is working on problems with the wind shield design, algorithms, frog intrusion, and deployment stock levels. Mr. Facundo expressed concerns about testing because the data is critical for media users. He suggested expanding the testing sample size for winter testing beyond that planned at the Johnstown test bed.

Enhanced Precipitation Identifier:

The contractor down-select was awarded to Vaisala. There are sensor performance problems, hopefully to be resolved and verified during this winter's testing, and Vaisala has been awarded limited production in preparation for Operational Acceptance Testing in April through June 2006.

The following Action Item was assigned:

APMC 05-2.3 Gifford: Provide a report to the APMC on the full assessment of the EPI winter test. Validate the approach used to test the hail algorithm.

Ceilometer Replacement:

Four companies were awarded contracts to deliver COTS sensors by November 24, 2005, and the COTS evaluation will continue through the fall and winter. The deployment and production contract award is scheduled for May 2006. Mr. Facundo suggested that a LIDAR system could be used in calibration.

ASOS PI Funding:

Ceilometer development and EPI production will make up most of the FY06 expenses. Although the budget only goes out to FY08, Mr. Ahlberg expects to see some recovery of funds in FY09, and the FAA may continue budgeting for PI into FY10. Mr. Kimbrell asked when the Navy needs to provide EPI production funding. Mr. Ahlberg responded that they could slip their procurement into FY08 according to the contract.

5. BEYOND PRODUCT IMPROVEMENT - TECHNOLOGY REFRESH CAPABILITY

Mr. Facundo introduced the question, "What is the ASOS role after PI?" In his overview he suggested that the APMC consider possible candidate paths.

Upgrading the Motherboard and the Sensors:

This would enable ASOS to be less platform-dependent and enable expanded data collection, going beyond aviation applications, such as high resolution data for the DOT surface transportation responsibilities. Potential changes include: overhauling the ACU, converting to a Linux system and employing blade clustering technology; and integrating NOAA and non-NOAA data sets, providing near real time data and leveraging available information.

Hardening the System for Hurricanes:

During this year's intense hurricane season sensors continued to meet their hardware specifications but other problems caused data losses. These problems would be reduced if ASOS were to use multiple communications paths, such as existing networks and satellite communications. The system needs other modifications to stay on line, such as upgraded UPS capability.

NERON Requirements:

Along with new NERON surface observing systems coming on line, ASOS needs to meet higher NOAA requirements including increased power capacity.

Redundant Sensors:

To ensure continuity of critical data, ASOS may need back up capabilities for temperature and other sensors.

In the discussion that followed, Col. Babcock asked if there were any studies available on reliability and maintainability of the ASOS system or any private sector needs emerging for high resolution data or higher data rates. Although there are no major reliability problems nor studies available to substantiate systematic problems, Mr. Mr. Humphrey pointed out that there are known isolated cases

of concern especially with communications problems at remote sites.

Mr. Facundo indicated that there are increasing demands within NOAA for data packaged in ways that would be easier to assimilate, and in general there is a strong government and academic push for higher rates and resolution of data. There is a need for more powerful connections and employing more modern technologies.

Both of the DOD representatives stressed that that communications security is an issue for them with new Federal Information Processing Standards (FIPS) in the FIPS 140 series. Mr. Humphrey reminded the committee that program managers need good cost estimates, and Mr. Kimbrell noted that in the post-hurricane environment, there is more need for hardening of the system.

Mr. Thoma suggested that hardening could be problematic, but he added that there is a need for higher level data distribution because of a rapid growth in marketing of weather data. Some of the distribution tasks could be accomplished through media networks. Mr. Ahlberg suggested that some redundancy could be achieved through more robust algorithms.

The committee agreed to look at these issues, while Mr. Kozlosky suggested that they could set up a working group to provide recommendations back to the APMC. The Chair endorsed the suggestion and proposed that the APMC set up the working group. The members agreed to provide one or two people to represent each organization plus additional technology experts.

Mr. Stang requested that the future needs be identified before June 2006 in time to address them in the FY09 budget. The members agreed to hold a special APMC meeting in 3 months focused on this subject. Mr. Merkle asked about the expectations for agency-level commitment, and Mr. Van Kuren responded that the agencies should agree on direction at the upcoming special meeting.

The following Action Item was assigned:

APMC 05-2.4 All APMC Members: Provide the names and contact information to the Secretariat of their representatives to the Future Sustainment and Product Improvement Working Group.

6. ASOS SOFTWARE WORKING GROUP (ASWG) - VERSION 3 FUNCTIONALITY REQUIREMENTS

Mr. Facundo informed the committee that the ASWG met during the past fiscal year to define the load up through version 3.2, including product improvement requirements. Ms. Hoch indicated that funding is available through version 3.0, and Mr. Ahlberg indicated that contracts have been awarded for software improvement including the LINT tool, to find potential errors in the code. Since there have been no additional change requests in recent months, Mr. Facundo asked if there is a need for the ASWG to continue to meet. Mr. Humphrey suggested that the ASWG would be needed to address future needs. Mr. Kozlosky reminded the committee that the ASWG needs to submit software release change requests for versions 2.82 and 3.0.

The following Action Item was assigned:

APMC 05-2.5 ASWG: Document and submit to nwsrsrc@noaa.gov software release requests for change for software versions 2.82 and 3.0.

7. NATIONAL ASOS INTER-AGENCY CONFERENCE

Mr. Dalyai introduced a discussion on the inter-agency conference. The conference that was scheduled for August 2005 had to be canceled but could be rescheduled in 2006. Mr. Thoma said the conference is a good idea but would like to be sure of the prime objectives to ensure the FAA sends the right people. Mr. Ahlberg responded that the focus will be on operations and maintenance. The DOD will also support the conference. Mr. Dalyai will work with the NWS Central Region focal point, Mr. Tom Townsend to put together the agenda.

8. ASOS OPERATIONS

Mr. Dalyai provided detailed slides on operations and maintenance activities; Mr. Mannarano provided information on sensor deployment status, including a sample of presentations available on the Management Information Reporting System; and Mr. Kimbrell gave a presentation on the U.S. Navy ASOS status. Mr. Kimbrell proposed a program planning meeting with the NWS PI representatives. The NWS

agreed and the Navy will host the meeting in Charleston, SC within the next few weeks.

9. ORGANIZATIONAL CHANGES

Mr. Thoma informed the committee of organizational changes within the FAA noting that there will be little change in operations, though he has picked up added responsibilities. Mr. Merkle is the Terminal Services Group weather representative. In the field there will be regional consolidations to be announced in the near future and the FTI has been recompeted, with Harris Corporation winning the integration contract.

Within the Air Force weather organization, Col. Babcock indicated that BGen. Stickford will be taking a new position so Col. John Murphy will be the acting Director of Weather.

10. OLD BUSINESS

Mr. Van Kuren summarized and asked for updates on the action items.

APMC 02-3.2A Gifford - Provide Algorithm updates as plain language as software releases occur. REVISION (of APMC 02-3.2) 5/13/03; PENDING 11/4/03; PENDING 6/22/04; PENDING 12/7/04 - To be placed on future APMC Agendas for discussion; 16 of 22 Algorithms have been reported PENDING 04/12/05 - Version 2.82 documentation is in progress PENDING 11/15/05

APMC 04-2.2: Monte - Submit a Request for Change (RC) for the AWPAG frog intrusion prevention basket. NEW 12/7/04; PENDING 04/12/05 - Drawings are due next week PENDING 11/15/05

APMC 04-2.3: Ahlberg - Report EPI Upgrade progress to the APMC once a vendor is selected. NEW 12/7/04; PENDING 04/12/05; CLOSED 11/15/05

APMC 04-2.5: Dalyai - Determine if NLSC sparing of pre-loaded processor boards for DOD software upgrades is feasible and preferable. NEW 12/7/04; Mr. Leonardo is working the issue, and briefing will be provided at the next APMC PENDING 04/12/05; CLOSED 11/15/05

APMC 04-2.8: Facundo - Contact Mr. Campbell to revitalize the ASWG so software release RCs for existing changes can be developed and submitted. NEW 12/7/04; PENDING 04/12/05; CLOSED 11/15/05

APMC 05-1.1: Kozlosky - Provide Mr. Kimbrell with the status of Navy/Air Force Interface RC. NEW 04/12/05; CLOSED 11/15/05

APMC 05-1.2: Facundo - Provide Florida ASOS power and communication deficiency report to members. NEW 04/12/05; PENDING 11/15/05

APMC 05-1.3: Kozlosky - Add Technology Refresh concept to the next APMC Agenda. NEW 04/12/05; CLOSED 11/15/05

APMC 05-1.4 All APMC members: Provide the names of an ASWG member and an alternate to Mr. Facundo or Mr. Kozlosky. NEW 04/12/05; CLOSED 11/15/05

APMC 05-1.5: Kozlosky: Provide Mr. Kimbrell with the status of the Navy/AWIPS interface Request for Change. NEW 04/12/05; CLOSED 11/15/05

APMC 05-1.6: All Presenters - Provide Mr. Kozlosky with a copy of the slide presentations for distribution to APMC Members. NEW 04-12-05; CLOSED 11/15/05

APMC 05-1.7: All APMC Members - Provide names for membership in an ad hoc group to develop a list of ASOS redeployment sites for adjudication. Mr. Campbell will chair the committee with Mr. Mannarano as the interim chair. NEW 04/12/05 - APMC should oversee redeployment PENDING 11/15/05

APMC 05-1.8: All APMC Members - Form an ad-hoc group to focus on AFSS restructuring impacts. NEW 04/12/05; PENDING 11/15/05

APMC 05-1.9: Thoma: Coordinate with NAS/OPS to develop an automation concept for notification of ADAS outages. NEW 04/12/05; PENDING 11/15/05

APMC 05-1.10: DOD: Provide information on Narrow-Band Requirements NEW 04/12/05 (See APMC 04-2.6); CLOSED 11/15/05

APMC 05-2.1 Dalyai: Provide a definitive briefing to the APMC on maintenance improvement for the temperature and dewpoint sensors NEW 11/15/05

APMC 05-2.2 Heil: Confirm the list of dewpoint continuity sites to be included in the maintenance improvement study NEW 11/15/05

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APMC 05-2.5 ASWG: Document and submit to nwsrsrc@noaa.gov software release requests for change for software versions 2.82 and 3.0 NEW 11/15/05

11. NEXT MEETING

The proposed date for the next APMC is on May 16, 2005. Time and location: 9:00 to 1:00, Room 16246 in Building SSMC2, National Weather Service Headquarters, Silver Spring, MD.
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14. EXECUTIVE SESSION

The Chair offered members the opportunity to convene an Executive Session. The committee members declined.

15. ADJOURN

The APMC adjourned at 12:45 p.m.